

Amendments to the Claims:

This listing of claims replaces all prior versions, and listings, of claims in the application:

1. (Currently amended) A chimeric polypeptide, said chimeric polypeptide comprising:
 - a) a first domain ~~comprising~~ consisting essentially of an ~~third~~ intracellular loop (i3 loop) or a fragment thereof ~~portion~~ of a G protein coupled receptor (GPCR), and
 - b) ~~at least~~ a second domain, attached to the first domain, wherein said second domain is a naturally or non-naturally occurring cell-penetrating, membrane-tethering hydrophobic moietywherein said first domain does not comprise a native extracellular portion of said GPCR and wherein said chimeric polypeptide binds to its cognate GPCR.
2. (currently amended) The chimeric polypeptide of claim 1, wherein said ~~second or more domains are~~ hydrophobic moiety is attached at ~~either one end, at both ends, or at an internal position~~ the N-terminal end, the C-terminal end, or both the N-terminal and C-terminal ends of said first domain.
3. (previously amended) The chimeric polypeptide of claim 1, wherein said hydrophobic moiety is a lipid.
4. (amended herein) The chimeric polypeptide of claim 3, wherein said hydrophobic moiety is selected from the group consisting of: capryloyl (C₈); nonanoyl (C₉); capryl (C₁₀); undecanoyl (C₁₁); lauroyl (C₁₂); tridecanoyl (C₁₃); myristoyl (C₁₄); pentadecanoyl (C₁₅); palmitoyl (C₁₆); phtanoyl ((CH₃)₄); heptadecanoyl (C₁₇); and stearoyl (C₁₈), ~~stearoyl (C₁₈), palmitoyl (C₁₆), myristoyl (C₁₄), lauryl (C₁₂), capryl (C₁₀), and capryloyl (C₈)~~ wherein said hydrophobic moiety is attached to said chimeric polypeptide with amide bonds, sulfhydryls, amines, alcohols, phenolic groups, or carbon-carbon bonds.
5. Cancelled.
6. - 9. Cancelled.
10. ⁵ (currently amended) The chimeric polypeptide of claim ~~6~~ 1, where said ~~intracellular portion is~~ i3 loop or fragment thereof comprises at least 3 contiguous amino acid residues of the third intracellular loop.

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11. ⁶ (currently amended) The chimeric polypeptide of claim 6 1, wherein said is at least 5 ~~intracellular portion is~~ 3 loop or fragment thereof comprises at least 5 contiguous amino acid residues of the third intracellular loop.
12. (canceled)
13. ⁷ (currently amended) The chimeric polypeptide of claim ~~12~~ 1, wherein said ~~intracellular portion is~~ 3 loop or fragment thereof comprises at least 7 contiguous amino acid residues of the third intracellular loop.
14. ² (Currently amended) The chimeric polypeptide of claim 1, wherein said first domain comprises a protease-activated receptor (PAR) and said second domain comprises a lipid moiety.
15. Cancelled.
16. Cancelled.
17. Cancelled.
18. Cancelled.
19. ⁹ (amended herein) The chimeric polypeptide of claim 1, wherein the G-protein coupled receptor or fragment thereof, is selected from the group consisting of a luteinizing hormone receptor, a follicle stimulating hormone receptor, a thyroid stimulating hormone receptor, a calcitonin receptor, a glucagon receptor, a glucagon-like peptide 1 receptor (GLP-1), a metabotropic glutamate receptor, a parathyroid hormone receptor, a vasoactive intestinal peptide receptor, a secretin receptor, a growth hormone releasing factor (GRF) receptor, protease-activated receptors (PARs), cholecystokinin receptors, somatostatin receptors, melanocortin receptors, ADP receptors, adenosine receptors, thromboxane receptors, platelet activating factor receptor, adrenergic receptors, 5-HT receptors, CXCR4, CCR5, chemokine receptors, neuropeptide receptors, opioid receptors, ~~erythropoietin receptor, von Willebrand receptor,~~ parathyroid hormone (PTH) receptor, and vasoactive intestinal peptide (VIP) receptor, ~~and collagen receptors~~.
20. - 28. Cancelled.
29. ¹⁰ (Original) A pharmaceutical composition comprising the chimeric polypeptide of claim 1 and a pharmaceutically acceptable carrier.

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30. Cancelled.

~~31.~~ ¹¹ (Original) A kit comprising in one or more containers, the pharmaceutical composition of claim ~~28.~~ ¹⁰

32.- 34. Cancelled.

~~35.~~ ¹² (Previously added) The chimeric polypeptide of claim 1, wherein said G-protein coupled receptor is a mammalian G-protein coupled receptor.

~~36.~~ ¹³ (Previously added) The chimeric polypeptide of claim 4, wherein said hydrophobic moiety is palmitoyl.

~~37.~~ ¹⁴ (Previously added) The chimeric polypeptide of claim ~~19~~ ¹, wherein said G-protein coupled receptor is a protease-activated receptor (PAR).

~~38.~~ ¹⁵ (Previously added) The chimeric polypeptide of claim ~~37.~~ ¹⁴, wherein the protease-activated receptor is selected from the group consisting of PAR1, PAR2, and PAR4.

~~39.~~ ¹⁶ (Previously added) The chimeric polypeptide of claim ~~12~~ ¹, wherein said ~~intracellular portion i3 loop or fragment thereof~~ comprises a sequence selected from the group consisting of SEQ ID NO: 1-16, 19-23, and 29.

~~40.~~ ¹⁷ (currently amended) The chimeric polypeptide of claim ~~12~~ ¹, wherein said ~~intracellular portion i3 loop or fragment thereof~~ comprises a sequence selected from the group consisting of SEQ ID NO: 1-10, and 23.

~~41.~~ ¹⁸ (Previously added) The chimeric polypeptide of claim 1, wherein the said G-protein coupled receptor is selected from the group consisting of CCKA, CCKB, SSTR2, and SubP receptors.

~~42.~~ ¹⁹ (Previously added) The chimeric polypeptide of claim 3, wherein said hydrophobic moiety is a steroid.

~~43.~~ ²⁰ (currently amended) A chimeric polypeptide, said chimeric polypeptide comprising:

- a) a first domain comprising an ~~intracellular portion~~ isolated i3 loop or fragment thereof of a protease-activated receptor (PAR), and
- b) a second domain, attached to the first domain, wherein said second domain is palmitate.

- ~~44.~~21 (new) The chimeric polypeptide of claim 1, wherein said hydrophobic moiety is selected from the group consisting of a phospholipid, a steroid, a sphingosine, a ceramide, an octyl-glycine, a 2-cyclohexylalanine, and a benzoylphenylalanine.
- ~~45.~~22 (new) The chimeric polypeptide of claim 1, further comprising a third domain, said third domain being a cell-penetrating, membrane tethering hydrophobic moiety attached to said first domain.
- ~~46.~~23 (new) The chimeric polypeptide of claim 1, wherein said i3 loop or fragment thereof comprises the amino acid sequence of SEQ ID NO:1.
- ~~47.~~24 (new) The chimeric polypeptide of claim 1, wherein said i3 loop or fragment thereof comprises the amino acid sequence of SEQ ID NO:2.
- ~~48.~~25 (new) The chimeric polypeptide of claim 1, wherein said i3 loop or fragment thereof comprises the amino acid sequence of SEQ ID NO:3.
- ~~49.~~26 (new) The chimeric polypeptide of claim 1, wherein said i3 loop or fragment thereof comprises the amino acid sequence of SEQ ID NO:4.
- ~~50.~~27 (new) The chimeric polypeptide of claim 1, wherein said i3 loop or fragment thereof comprises the amino acid sequence of SEQ ID NO:5.
- ~~51.~~28 (new) The chimeric polypeptide of claim 1, wherein said i3 loop or fragment thereof comprises the amino acid sequence of SEQ ID NO:6.
- ~~52.~~29 (new) The chimeric polypeptide of claim 1, wherein said i3 loop or fragment thereof comprises the amino acid sequence of SEQ ID NO:7.
- ~~53.~~30 (new) The chimeric polypeptide of claim 1, wherein said i3 loop or fragment thereof comprises the amino acid sequence of SEQ ID NO:8.
- ~~54.~~31 (new) The chimeric polypeptide of claim 1, wherein said i3 loop or fragment thereof comprises the amino acid sequence of SEQ ID NO:9.
- ~~55.~~32 (new) The chimeric polypeptide of claim 1, wherein said i3 loop or fragment thereof comprises the amino acid sequence of SEQ ID NO:10.
- ~~56.~~33 (new) The chimeric polypeptide of claim 1, wherein said i3 loop or fragment thereof comprises the amino acid sequence of SEQ ID NO:11.

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- ~~57.~~³⁴ (new) The chimeric polypeptide of claim 1, wherein said i3 loop or fragment thereof comprises the amino acid sequence of SEQ ID NO:12.
- ~~58.~~³⁵ (new) The chimeric polypeptide of claim 1, wherein said i3 loop or fragment thereof comprises the amino acid sequence of SEQ ID NO:13.
- ~~59.~~³⁶ (new) The chimeric polypeptide of claim 1, wherein said i3 loop or fragment thereof comprises the amino acid sequence of SEQ ID NO:14.
- ~~60.~~³⁷ (new) The chimeric polypeptide of claim 1, wherein said i3 loop or fragment thereof comprises the amino acid sequence of SEQ ID NO:15.
- ~~61.~~³⁸ (new) The chimeric polypeptide of claim 1, wherein said i3 loop or fragment thereof comprises the amino acid sequence of SEQ ID NO:16.
- ~~62.~~³⁹ (new) The chimeric polypeptide of claim 1, wherein said i3 loop or fragment thereof comprises the amino acid sequence of SEQ ID NO:19.
- ~~63.~~⁴⁰ (new) The chimeric polypeptide of claim 1, wherein said i3 loop or fragment thereof comprises the amino acid sequence of SEQ ID NO:20.
- ~~64.~~⁴¹ (new) The chimeric polypeptide of claim 1, wherein said i3 loop or fragment thereof comprises the amino acid sequence of SEQ ID NO:21.
- ~~65.~~⁴² (new) The chimeric polypeptide of claim 1, wherein said i3 loop or fragment thereof comprises the amino acid sequence of SEQ ID NO:22.
- ~~66.~~⁴³ (new) The chimeric polypeptide of claim 1, wherein said i3 loop or fragment thereof comprises the amino acid sequence of SEQ ID NO:23.
- ~~67.~~⁴⁴ (new) The chimeric polypeptide of claim 1, wherein said i3 loop or fragment thereof comprises the amino acid sequence of SEQ ID NO:28.
- ~~68.~~⁴⁵ (new) The chimeric polypeptide of claim 1, wherein said i3 loop or fragment thereof comprises the amino acid sequence of SEQ ID NO:29.
- ~~69.~~⁴⁶ (new) The chimeric polypeptide of claim 1, wherein the hydrophobic moiety is a steroid.